

BOBRINSKIY, V.M.

Ancient weathering surface on rocks of the buried slopes in
the northern Dobruja. Kora vyvetr. no. 6:139-149 '63.

(MIRA 17:9)

1. Institut geologii i poleznykh iskopayemykh Moldavskogo
filiala AN SSSR, Kishinev.

BOBRINSKIY, V.M.; BUKATCHUK, P.D.; BURGELYA, N.K.; DRUMYA, A.V.;
KAPTSAN, V.Kh.; MAKARESKU, V.S.; NEVRYANSKIY, D.G.;
NEGADAYEV-NIKONOV, K.N.; PERES, F.S.; ROMANOV, L.F.;
ROSHKA, V.Kh.; SAFAROV, E.I.; SAYANOV, V.S.; SOBETSKIY,
V.A.; TKACHUK, V.A.; KHUBKA, A.N.; EDEL'SHTEYN, A.Ya.;
LUTOKHIN, I., red.

[Paleogeography of Moldavia] Paleogeografiia Moldavii.
Kartia, moldoveniaske, 1965. 145 p. (MIRA 18:9)

1. Otdel palenotologii i stratigrafii AN Moldavskoy SSR
(for Negadayev-Nikonov, Roshka, Romanov, Sobetskiy, Khubka).
2. Institut geologii i poleznykh iskopayemykh Gosudarstvennogo
geologicheskogo komiteta SSSR (for Bobrinskiy, Burgelya,
Nevryanskiy, Tkachuk, Edel'shteyn). 3. Opornaya seysmostantsiya
AN Moldavskoy SSR (for Drumya). 4. Gosudarstvennyy proizvod-
stvennyy geologicheskii Komitet Moldavskoy SSR (for Bukatchuk,
Kaptzan, Safarov).

BOBRINSKAYA, O.G.; BOBRINSKIY, V.M.; BUKATCHUK, P.D.; DANICH, M.M.;
KAPTSAN, V.Kh.; NEGADAYEV-NIKONOV, K.N.; POPOVA, T.V.;
ROSHKA, V.Kh.; SAFAROV, E.I.; SOBETSKIY, V.A.; EDEL'SHTEYN,
A.Ya.; BURGELYA, N.K., red.; DRUMYA, A.V., red.; KUZNETSOVA,
E., red.

[Stratigraphy of sedimentary formations in Moldavia] Strati-
grafiia osadochnykh obrazovani Moldavii. Kishinev, Kartia
moldoveniaske, 1964. 129 p. (MIRA 19:1)

1. Otdel paleontologii i stratigrafii AN Moldavskoy SSR (for
Bobrinskaya, Danich, Negadayev-Nikonov, Popova, Roshka,
Sobetskiy). 2. Institut geologii i poleznykh iskopayemykh,
gorod Kishinev (for Bobrinskiy, Edel'shteyn). 3. Upravleniye
geologii i okhrany neдр pri Sovete Ministrov Moldavskoy SSR
(for Bukatchuk, Kaptsan, Safarov).

~~BOBRINSKIY, Yuriy Nikolayevich~~; SERGEYEV, Nikolay Petrovich; GULYAYEV, A.I.,
Inzhener, retsenzent; KARANOV, N.S., kandidat tekhnicheskikh nauk,
redaktor; GRUSHEVSKAYA, G.M., redaktor izdatel'stva; TIKHONOV, A.Ya.,
tekhnicheskij redaktor; MATVEYEVA, Ye.N., tekhnicheskij redaktor

[Arrangement and installation of resistance welding machines] Ustroistvo
i naladka knotaknykh svarochnykh mashin. Moskva, Gos. nauchno-tekhn.
izd-vo mashinostroit. lit-ry, 1956. 143 p. (MLRA 10:1)
(Electric welding)

BOBRINSKIY, Yu.N.; YERSHOV, L.K.; GORBUNOVA, Ye.A., red.; TORSHINA, Ye.A., tekhn. red.

[Resistance welding of metals; from work practices of the Likhachev Automobile Plant] Kontaktnaia svarka metallov; iz opyta raboty avtozavoda im. Likhacheva. Moskva, TSentr. biuro tekhn. informatsii, 1959. 51 p. (MIRA 15:1)
(Electric welding)

S/135/60/000/012/002/010
A006/A001

AUTHOR: Bobrinskiy, Yu.N., Engineer

TITLE: Feed Sources for Arc Welding¹⁸

PERIODICAL: Svarochnoye proizvodstvo, 1950, No. 12, pp. 6-10

TEXT: The advanced development of welding techniques and the introduction of welding as a basic technological process calls for an increased production of welding equipment, in particular, of feed sources for electric arc welding. An exhibition of such feed sources has been organized and the author reports on a number of exhibits including welding transformers, mechanical d-c converters and semiconductor rectifiers. 1. Welding transformers. Conventional transformer types with separate reactive coils are on view which have proved satisfactory in operation; nevertheless, the high copper consumption required for their manufacture and insufficiently reliable current control are the deficiencies of these machines. They have been eliminated in a new unified series of TC (TS) and TCK (TSK) transformers which will be produced by the "Elektrik" Plant and the Vil'nyuskiy zavod elektrosvarochnogo oborudovaniya (Vil'nyus Plant of Electric Welding Equipment). The series consist of four TS and TSK transformers of higher

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inductive dissipation assuring falling external characteristics. Smooth control of welding current is achieved by varying the dissipation inductance by means of changing the distance between the primary and secondary aluminum windings. The TS type transformers ensure easy and accurate current control and reliable conductance of the welding process. Special high-power single- and three-phase transformers of the ТШ-600-3 (TSh-600-3), ТШ-1000 (TSh-1000) and ТШС-3000 (TShS-3000) type will be used in electric slag welding. (Rated current intensity from 600 to 3000 amps per phase). УДАР-300 (UDAR-300) machines exhibited by "Elektrik" and ИПК-350 (IPK-350) machines shown by NIAT are intended for welding with non-consumable tungsten electrodes in argon or other inert gases. Their electric circuits are analogous. The technical characteristics of the IPK-350 type are: 350 amps maximum current; 50 amps minimum current; idle run voltage - 50 v; arc voltage 14-20 v. 2. Oscillators. The ОСП-88-1 (OSP-88-1) oscillator is switched on the welding circuit into the external interrupting conductors; this eliminates the introduction into the circuit of alternating and direct currents of protective filters. Power consumption is reduced and efficiency raised. A schematic diagram (Figure 4) shows the electric circuit of the machine which may be used in argon arc and other welding processes. 3. Welding Converters. A unified series of ПСО (PSO) converters are on view including the ПСО-120 (PSO-

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120) type for manual arc welding and the high-power ПСО -500 (PSO-500) and ПСО -800 (PSO-800) types for automatic welding under flux. VNIIESO shows gasoline or diesel motor driven welding units intended for operation on the site. (CAM-300 (SAM-300), ACБ -300-2 (ASB-300-2), ACДП -500Г (ASDP-500G)). The multi-purpose ПСУ -500 (PSU-500) welding converter, designed by NIAT, is intended for automatic and semi-automatic welding in shielding gas and under flux and for manual arc welding with coated electrodes. Universal external characteristics are obtained with the aid of special ПП -1 (PP-1) and ПМ -2 (PM-2) type attachments, controlling the excitation current of the low-voltage transformer-generators. The semiconductor PP-1 attachment consists of a two-step semiconductor d-c amplifier which controls the current of the generator excitation coil according to the established program as a function of the welding current. The PM-2 magnetic attachment is a differential system of a magnetic transformer amplifier consisting of two single-cycle amplifiers. The generator excitation coils are fed from the secondary amplifier opposing coils. The switch-over from the one to the other type of external characteristics is made with the aid of a packet switch. The attachments have the following technical characteristics:

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Characteristics	Attachment type	
	PF-1	FM-2
Feed voltage in v	3x220/380	220
Maximum power efficiency in watts	200	180
Maximum charge current in amps	6,5	7,0
Voltage efficiency in v	30	25
Weight in kg	18	20
Dimensions in mm	500x315x240	200x250x300

Special welding converters of the ПСГ -350 (PSG-350) and the ПСГ -500 (PSG-500) type of 350 and 500 amps rated current, are intended for welding in carbon dioxide and other shielding gases. 4. Welding rectifiers. NTAT exhibits selenium-valve semiconductor rectifiers of the ИПП (IPP) series. [ИПП -120П (IPP-120P), ИПП-300П (IPP-300P), ИПП -500П (IPP-500P) and ИПП -1000П (IPP-1000P)] for the welding-arc feed in semi-automatic and automatic welding with consumable electrodes in shielding gas. The rectifiers consist of a power transformer, a booster, a three-phase autotransformer with smooth voltage control from 0 to 380 v, a rectifying unit of the stabilizing choke and a trigger regulating device.

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A006/AC01

The transformers ensure rigid volt-ampere characteristics and a smooth control of the welding current on each step. TsNILELEKTROM exhibits experimental models of a БСК (VSK) type rectifier, a multi-purpose welding generator with automatic-controlled excitation and a ЦН (SP) type stabilized drive. The VSK rectifier has rigid external characteristics and higher idle run voltage. Equipped with an ignition device and a stabilizing choke it can be used as a multi-purpose feed source of the welding arc in automatic and semi-automatic welding in a gas shield with consumable electrode, and in manual welding with a coated electrode. It has higher technical and economical features than a device with falling external characteristics used mainly in manual arc welding. Compared to this the efficiency of the VSK rectifier is by 10-15% higher and its power coefficient by 0.07-0.2. The material consumption is reduced by 1.5-2 times. The exhibited group of ЦН (SP) type drives is intended to stabilize the revolutions of electric motors for electrode feed, trolleys in automatic and semi-automatic welding machines, and electric-spark units. The speed control of the motor revolutions at a multiplicity of regulation of an order of 8-10, is performed with the aid of a potentiometer. The Leningrad "Elektrik" Plant shows a series of БСЛ (VSS) type welding rectifiers for electric arc feed in manual welding, cutting and hardfacing. The rectifiers convert the three-phase a-c voltage of the circuit into d-c voltage required for

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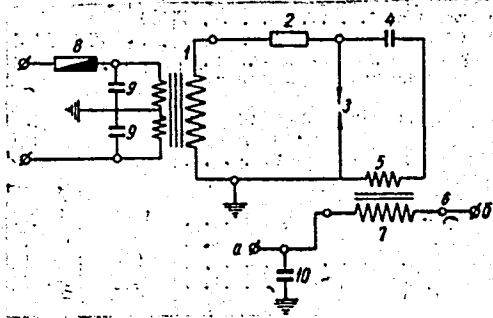
arc welding, producing the necessary falling characteristics. A smooth current control within the required range is obtained. The rectifier is a one-position welding unit consisting of a three-phase step-down transformer, a selenium rectifier unit, a ventilator and a trigger regulating device mounted into a common housing. The rated current value of the БС-120 (VSS-120) and the БС-300-2 (VSS-300-2) rectifiers is 120 and 300 amps respectively and the rated voltage is 25 and 30 v. The author concludes that the show makes a good impression and the exhibits may compete with first-class foreign machines. The large scale output of these welding transformers and rectifiers has not yet started.

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Feed Sources for Arc Welding

Figure 4



Electric circuit of the OSP-88-1 oscillator

1 - step-up transformer; 2 - limiting resistance; 3 - spark discharger; 4 - capacitor; 5 - primary winding of the high-frequency transformer; 6 - ferrite core; 7 - secondary winding of the high-frequency transformer; 8 - safety fuse; 9, 10 - capacitors.

There are 11 figures and 9 tables.

Card 7/7

BOBRISSEV, G.I. [Bobrishev, G.I.]; furomernok

Perspectives for introducing turbo-boring by small diameter in Hungary.
Bany lap 93 no. 3:208-210 Mr 60.

BOBRISSEV, G.I. (Bobryshen, G.I.) furomernok

Possibilities of the operational use of the rotary boring tool VEMPE
-4² in Hungary based on the air-lift system and by local circulation in
the bottom of the hole. (To be contd.) Bany lap 93 no. 10:716-718 0 60.

1. Koolajipari Troszt, Budapest.

BOBRISSEV, G.I. [Bobryshev, G.I.], drilling engineer

Perspectives of introducing the slim-hole turbo-drilling in
Hungary. Bany lap 93 no.3:208-210 Mr '60.

BOERISHCHEV-PUSHKIN, D.M.

Labor Hygiene

Dissertation: "Basic Problems of Labor Hygiene in Core Making Shops of Modern Foundries."
Cand Med Sci, Acad Med Sci USSR, 17 Mar 54. (Vechernyaya Moskva, Moscow, 5 Mar 54).

SO: SUM 213, 20 Sep 54

AKOPOV, Igor' Artashesovich; BOBRISHCHEV-PUSHKIN, Dmitriy
Mikhaylovich; PROKOF'YEVA, Anna Kuz'minichna; YATSENKO,
Konstantin Petrovich; AL'TMAN, M.B., doktor tekhn. nauk,
retsenzent; IL'IN, O.A., inzh., retsenzent; YAKOVLEVA,
V.I., red.

[Industrial safety in working with beryllium and its alloys]
Bezopasnost' truda pri rabote s berilliem i ego splavami.
Moskva, Izd-vo "Mashinostroenie," 1964. 106 p. (MIRA 17:6)

BOBRISSEV, G.I. [Bobryshev, G.I.], furomernok

Exploring petroleum and gas containing strata in Hungary
by directional boring. Bany lap 96 no.12:947-950 D'63.

1. Orszagos Koolaj-es Gazipari Troszt, Budapest.

OKNINA, Ye., kand.biologicheskikh nauk; BOBRISHEVA, A., nauchnyy sotrudnik

Trees don't sleep even in winter.... Nauka i zhizn' 29 no.11:
101 N '62. (MIRA 16:1)

(Plant physiology)

BOBRISHEVA, I.G. [Bobrysheva, I.H.]

Fashion trends for 1965. Loh. prom. no.1:84-85 Ja-Mr '65.
(MIRA 18:4)

BOERTSKAYA, A. V., AND N. G. KLYUEVA

"The Phenomenon of Allergy in Rheumatism," *Materialy kliniki po vozrastnoy patologii* (Clinical Material in Age-Group Pathology), published by VIEM, 219-251, 1937

CA

10

Absorption of mineral elements from massive crystalline rocks by lithophytes. M. A. Bolnitskaya. *Trudy Pish. resnogo Inst. im. V. V. Dokuchaeva* 34, 5-27 (1950). The formation of a soil starts with the decompos. of lithophyll lichens, plants capable of extg. and assimilating elements, notably S, P, and K, from rocks upon which they grow. The purpose of this investigation was to study the compn. of ash of lithophyllic lichens and mosses growing on granites and limestones with a view of shedding light on the origin of soils. Methods used and results are reported. M. Hosh

BOBRITSKAYA, M.A., kandidat geologo-mineralogicheskikh nauk.

Meeting in memory of Academician B.B.Polynov. Vest.AN SSSR 23 no.5:114-
115 My '53. (MLRA 6:7)

(Polynov, Boris Borisovich, 1877-1952)

502 1-1-51 274 1941

✓ The ash composition of clover and timothy in relation to soil formation in the sod-podzolized zone. M. A. Bobric-akaya. *Pochvedenie* 1955, No. 1, 64-77. Data on the compn. of clover and timothy plants when grown as a grass mixt. show that in red clover K and P accumulate in the tops and roots. Ca accumulates primarily in the tops, whereas Mg and S accumulate in the roots. Thus legumes do not mobilize Ca in the soil, since the roots have small quantities of Ca. As the clover stand ages, the S and Mg content of the ash increases. K and P also accumulate in timothy (as much as 58% of the ash of the tops), but Mg is higher in the tops than in the roots and the reverse is true for Ca. Besides the elements mentioned, data are presented on the content of SiO_2 , Fe_2O_3 , Al_2O_3 , MnO , Na_2O , CO_2 -free ash, and total ash at various stages of growth and during 3 years of growth. J. S. Loffe

GENKEL', P.A.; BOBRITSKAYA, M.A.; TSVETKOWA, I.V.

Effect of T.S.Mal'tsev's tillage methods on certain physiological characteristics of spring wheat. Fiziol.rast. 2 no.1:42-51 Ja-F '55. (MIRA 8:9)

1. Institut fiziologii rasteniy imeni K.A.Timiryazeva i Pochvennyy institut imeni V.V.Dokuchayeva Akademii nauk SSSR, Moscow.
(Wheat) (Tillage)

BOBRITSKAYA, M.A.

Role of cultivated annual plants in the balance of soil organic and mineral substances [with summary in English]. Pochvovedenie no.1:44-45 Ja '58. (MIRA 11:2)

1. Pochvennyy institut im. V.V. Dokuchayeva AN SSSR.
(Soils) (Minerals in soil) (Humus)

VAN TSZUN'-TSIN [Wang TSun-ch'ing], praktikant; YAO SYAN'-LYAN
[Yao Hsien-liang], aspirant; BOBRITSKAYA, M.A.

Preparing highly qualified soil scientists in the U.S.S.R. for
the Chinese People's Republic. Pochvovedenie no.11:116
N '59. (MIRA 13:4)

(China--Soils)

BOBRITSKAYA, M.A.

Nature of humus substances of the trans-Ural Chernozems. Pochvovedenie
no.1:54-61 Ja '61. (MIRA 14:1)

1. Pochvennyy institut imeni V.V. Dokuchayeva AN SSSR.
(Siberia, Western--Chernozem soils)

BOBRITSKAYA, M.A.

Penetration of nitrogen into soil with precipitation in various
zones of the European part of the U.S.S.R. Pochvovedenie
no.12:53-60 D '62. (MIRA 16:2)

1. Pochvennyy institut imeni V.V.Okuchayeva, pochvenno-
biologicheskaya laboratoriya.
(Russia, Northwestern—Soils—Nitrogen content)
(Precipitation (Meteorology))

BOBRITSKAYA, M.A.

Penetration of nitrogen into soil with precipitation and its
removal from the soil with lysimeter water. Pochvovdenie
no.9:21-30 Ag [i.e. S] '63. (MIRA 16:10)

1. Pochvennyy institut imeni V.V. Dokuchayeva.
(Soils—Nitrogen content) (Lysimeter)

BOBRITSKAYA, N.A.

Migration of elements in a local geochemical landscape of the
Istra River, Moscow Province. Pochvovedenie no.11:79-87 N '64
(MIRA 18:1)

1. Pochvennyy institut imeni V.V. Dokuchayeva AN SSSR, Moskva.

ANTIPOV- KARATAYEV, I.N.; BOBRITSKAYA, M.A.

The 7-th International Congress of Soil Scientists. Pochvovedenie
no.1:100-104 Ja '65. (MIRA 18:7)

1. Pechvennyy institut imeni V.V. Dokuchayeva, Moskva.

ANTIPOV-KARATAYEV, I.N.; BOBRITSKAYA, M.A.

International Congress of Soil Scientists in Bucharest. Izv.
AN SSSR. Ser. biol. no.2:310-314 Mr-Apr '65.

(MIRA 18:4)

MITENEVSKA, V.K.; YARTSEVA, A.K.; BOBRITSKAYA, M.A.

Nitrogen balance in turf-Podzolic soils. Pochvovedenie no. 7:
72-79 J1 '65 (MIRA 19:1)

1. Pochvennyy institut imeni V.V. Dokuchayeva, Moskva. Submitted
November 1, 1963.

BOBRITSKIY, Aleksey Timofeyevich; GAVRILOV, I.S., red.; LEVONEVSKAYA,
L.I., tekhn. red.

[Vegetable gardening on peat soils] Vyrashchivanie ososhchei
na torfianikakh. Leningrad, Lenizdat, 1961. 19 p.

(MIRA 15:11)

1. Glavnyy agronom Sovkhoza "Shushary", Leningradskaya oblast'
(for Bobritskiy).

(Vegetable gardening) (Peat soils)

BOBRITSKIY, M.M., inzhener.

Use of flue cinders in brick and ceramic block manufacture.
Elek.sta. 25 no.9:48 8 '54. (MIRA 7:9)
(Cinder blocks)

BOBRITSKIY, M.M.

Subject : USSR/Hydraulic Engineering Construction AID P - 1761

Card 1/1 Pub. 35 - 20/21

Author : Bobritskiy, M. M.

Title : ~~Седов, М. П. Зашчитные оболочки и сварные армоконструкции Гидротехническом строител'стве~~
Sedov. M. P. Zashchitnyye obolochki i svarnyye armokonstruktsii Gidrotekhnicheskoy stroitel'stve (Protecting Slabs and Welded Reinforced Concrete Structures in Hydraulic Engineering Construction) Gosenergoizdat, 1953. 143 pp. (Book Review)

Periodical : Gidr. stroi., v.24, no.2, 47, 1955

Abstract : This book is severely criticized for inaccurate reporting. It is written on the basis of the Volgostroy experience (Volga Hydro-Power Development Construction Project) in 1939-1940. A mention is made of dimensions of slabs on the Volga-Don Canal and at the Tsimlyanskaya Power Plant construction, as compared to those of the Volgostroy and the construction of the Gor'kiy Power Plant.

Institution: None

Submitted : No date

BOENITSKIY, M.M., inzh.

Pavlovsk Hydroelectric Power Station on the Ufa River. Gidr.
stroi. 31 no. 1:4-12 Ja '61. (MIRA 14:2)
(Pavlovsk Hydroelectric Power Station)

BOBRITSKIY, M.M., inzh.

Preparation of artificial sand in construction of the Golovnaya
Hydroelectric Power Station. Gidr. stroi. 32 no.8:13-14 Ag '62.
(MIRA 15:9)

(Golovnaya Hydroelectric Power Station--Aggregates (Building
Materials))

KUPERMAN, V.L., inzh.; OBREZKOV, S.S., inzh.; ERISTOV, V.S., red.;
BOBRITSKIY, M.M., inzh., red.; MOSTKOV, V.M., inzh.,
red.; ROZANOV, K.A., inzh., red.; TAYCHER, S.I., inzh.,
red.; KORNILOV, A.M., red.; LARIONOV, G.Ye., tekhn.red.

[Design and construction of hydraulic tunnels and under-
ground hydroelectric power stations] Proektirovanie i so-
oruzhenie gidrotekhnicheskikh tunnelei i podzemnykh GES;
materialy soveshchaniia. Moskva, Gosenergoizdat, 1963.
231 p. (MIRA 16:10)

1. Chlen-korrespondent Akademii stroitel'stva i arkhi-
tektury SSSR (for Eristov).
(Hydroelectric power stations)

BOBRITSKIY, M.M., inzh.

Hard concrete mixtures in hydraulic structures. Energ. stroi. no.34:
63-65 '63. (MIRA 17:1)

1. Tekhnicheskoye upravleniye po stroitel'stvu elektrostantsiy i setey.

BOBRITSKIY, M.M., inzh.

Coordinating conference on the construction of hydraulic structures
and hydroelectric power stations. Energ. stroi. no.32:93-95 '62.

(MIRA 16:5)

SCV-135-58-11-5/21

AUTHORS: Taran, V.D., Doctor of Technical Sciences, Professor; Robritskiy, N.V., Engineer; Fal'kevich, A.S., Candidate of Technical Sciences, and Neyfel'd, I.Ye., Engineer

TITLE: An Investigation of Pipe Pressure-Welding Process (Issledovaniye protsessa pressovoy svarki trub)

PERIODICAL: Svarochnoye proizvodstvo, 1958, Nr 11, pp 12-14 (USSR)

ABSTRACT: There is no exact information available on the processes of seam formation in the pressure welding of pipe butts. VNIIST carried out experiments together with the Chair of Metal Study of the Moscow Oil Institute imeni I.M. Gubkin, relating to the study of the pressure welding process under a plastic condition with the use of radioactive isotopes. "Marked atoms" were used to determine the correctness of one of the two existing hypotheses on the formation of weld joints, and to solve the problem of iron-atom diffusion and changes of properties in weld joints by subsequent heat treatment. Microautoradiography was used to investigate the diffusion processes in metal. The following conclusions are made:

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1) The penetration of grains through the border dividing the

An Investigation of Pipe Pressure-Welding Process

SOV-135-58-11-5/21

parts being welded does not take place. 2) Weld joints have a non-diffusion character and common grains on the border are formed by the drawing together of surface grain atoms. 3) Subsequent heat treatment of pressure-welded low-carbon steel proved inefficient. Further investigation on the use of other radioactive isotopes in the pressure-welding process is recommended.

There are 2 tables, 1 graph, 2 diagrams, 3 sets of micro-photos and 7 references, 2 of which are English and 5 Soviet.

ASSOCIATIONS: Moskovskiy neftyanoy institut (Moscow Petroleum Institute)
VNIIST Glavgaza SSSR (VNIIST of Glavgaz USSR)

1. Pipes—Welding 2. Metals—Diffusion 3. Radioisotopes—
Applications 4. Welds—Autoradiography

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SOV/125-59-1-11-15

25(1)

AUTHOR:

Bobritskiy, N.Y., Grinberg, N.A.

TITLE:

The Use of Local Spectrum Analysis for Research of the Chemical Heterogeneity of the Fusion Section by Application of Electro-Contact Welding (Primeneniye lokal'nogo spektral'nogo analiza dlya issledovaniya khimicheskoy neodnorodnosti zony soyedineniya pri elektrokontaktnoy svarke)

PERIODICAL:

Avtomaticheskaya svarka, 1959, Nr 1, p 62-69 (USSR)

ABSTRACT:

The authors report on some results of tests performed on the chemical heterogeneity of welded fusions by means of the spectro-analytical method. Low-alloy chromium-manganese and low-carbon steel rods were welded on by electro-contact fusion. When fusing such rods by electro-contact welding, the content of carbon, chromium and manganese in the butt section does not differ from the concentration of these elements in the basic metal. A considerable chemical heterogeneity in the welded butt section (especially in regard to chromium and carbon) may be attained by coating the weldable surfaces with a layer of rust. The oxidation processes will thus be intensified and the content

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SOV/125-59-1-11-15
The Use of Local Spectrum Analysis for Research of the Chemical
Heterogeneity of the Fusion Section by Application of Electro-Contact
Welding

of manganese will remain essentially unchanged. When fusing with low-carbon steel, the manganese content in the welding section is almost as constant as in the basic metal, while the quantity of carbon in the same section abruptly decreases upon formation of ferrite streaks. As a result of the upsetting pressure, and the coating of annealed surfaces with smelted metal and iron vapor, the welded fusions of chromium-manganese steel have heterogeneous chemical compositions in the butt and in the basic metal, as regards carbon, chromium and manganese. The pressure applied during the upsetting, presses out the liquid metal. The composition of this metal differs from that in the basic metal. Subsequently, the hard surfaces of the rod, that possess the same chemical composition as the basic metal, are fused. The tests were performed under the direction of V.D. Taran, Doctor of

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25(1)

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The Use of Local Spectrum Analysis for Research of the Chemical
Heterogeneity of the Fusion Section by Application of Electro-Contact
Welding

Technical Sciences. Taking part in the experiments were
engineer Ye. A. Volodina, and the technician S.I. Shamonov.
There are two photos, five tables, three graphs, and five
references, four of which are Soviet, and one English.

ASSOCIATION: VNIIST Glavgaza SSSR

SUBMITTED: June 27, 1958

Card 3/3

Study
BOBRITSKIY, N. V., CAND TECH SCI, "INVESTIGATION OF THE
PROCESS OF FORMING ~~the~~ ^{of the} WELD JOINTS OF MAIN PIPELINES, AC-
COMPLISHED BY PRESSURE WELDING." MOSCOW, 1961. (MIN OF
HIGHER AND SEC SPEC ED RSFSR. MOSCOW ORDER OF LABOR RED
BANNER INST OF PETROCHEM AND GAS INDUSTRY ^y ~~IMENI~~ I. M.
GUBKIN). (KL-DV, 11-61, 218).

BEREZIN, V.L.; DOBRITSKIY, N.V.

Improving the quality of the weld joints of oil and gas pipelines
through electric-contact flash welding. Izv. vys. ucheb. zav.; neft'
i gaz 6 no.1:93-97 '63. (MIRA 17:10)

1. Ufimskiy neftyanoy institut.

GALEYEV, V.B.; SOSHCHENKO, Ye.M.; BOBRITSKIY, N.V.

Analyzing the causes of failure in pipelines. Transp. i khran.
nefti i nefteprod. no.7:7-9 '64. (MIRA 17:8)

1. Ufimskiy neftyanoy institut i Bashkirskoye nefteprovodnoye
upravleniye Glavnogo upravleniya po transportu i snabzheniyu
neft'yu i nefteproduktami RSFSR.

BEREZIN, V.L.; BOBRITSKIY, N.V.; KHAKIM'YANOV, R.R.; AZEVICH, S.P.

Selecting the proper conditions for the elimination of corrosion damage to operational petroleum-products pipelines by the application of patches. Izv. vys. ucheb. zav.; neft' i gaz. 8 no.5:89-92 '65. (MIRA 18:7)

1. Ufimskiy neftyanoy institut.

BEREZIN, V.L.; BOBRITSKIY, N.V.; KHAKIM'YANOV, R.R.; AZEVICH, S.P.

Selecting the technology of the sealing of cavities in
petroleum pipelines in case of overhauling. Izv. vys.
ucheb. zav.; neft' i gaz 7 no.11:71-75 '64. (MIRA 18:11)

1. Ufimskiy neftyanoy institut.

BOBRITSKI^Y, T. I.

(epizody iz zhizni Eprona); Conquering the depths; operations of the EPRON (Salvage Maritime Organization in the USSR) 2. perer. i dop. izd. Leningrad, Molodaia gvardiia, 1936. 342 p.

SHANOVSKAYA, S.S.; RASSOLOV, N.I.; BEKIRBAYEV, B.D.[deceased];
PETRUKHIN, P.M.; GRODEL, G.S.; FROLOV, M.A.; CHERVINSKIY,
M.S.; BOBRITSKIY, V.P.; POLYANSKIY, I.P.; NIKITIN, V.S., otv.
red.; LUCHKO, V.S., red.izd-va; SHKLYAR, S.Ya., tekhn. red.;
MAKSIMOVA, V.V., tekhn. red.

[Handbook on controlling dust in coal mines] Spravochnoe po-
sobie po bor'be s pyl'iu v ugol'nykh shakhtakh. [By S.S.
Shanovskoi i dr.] Moskva, Gosgortekhnizdat, 1963. 190 p.
(MIRA 16:6)

(Mine dusts)

CHERVINSKIY, N.S.; BOBRITSKIY, V.P.

Increasing the efficiency of sprinkler devices on cutter-loaders.
Trudy MakNII 15:190-205 '63. (MIRA 17:11)

CHERNOMIR, M.B., Inzh.; DOBRYSHIN, V.T.

First control measures in the extraction of coal while people
are periodically present in the stope. Because of this, the
100% (MIRA 100%)

1. Makeyevskiy nauchno-issledovatel'skiy institut po bezopasnosti
truda v gornoy promyshlennosti.

BOBRIYEVICH, A. A. P.; SOBOLEV, V. S.; ZOLOTUKHIN, V. V.

"Tourmaline in Metasomatic Rocks of the Transcarpathian Region," Mineralog. sb. L'vovsk. geol. o-va, No 7, pp 209-312, 1953

In transcarpathia, tourmaline in fine crystalline spherothoid aggregates has been observed in changed liparitic tuffas and in quartzed breccia, consisting of fragments of clayey shales and granodiorite-porphyrates. In breccia are observed pyrite and separate conglomerates of fine-aggregate kaolinite. The quartz portions of the breccia consist of quartz and tourmaline. According to the data of spectral analysis, the tourmaline contains about 2% B_2O_3 , N_g 1.658, N_p 1.638, $N_g-N_p=0.020$. In the quartz-tourmaline rocks, tourmaline is contained from 10 to 20%. In crystals of quartz from rock with zonal spherolites of tourmaline are observed inclusions of mineral forming solutions with preponderance of the gaseous phase. At 250°, the inclusions were exploded, but homogenization was not observed. (RZhGeol, No 4, 1955)

Sum. No. 681, 7 Oct 55

~~BOBRIYEVICH, A.P.~~, sotrudnik; BONDARENKO, M.N., sotrudnik; GNEVUSHEV, M.A.,
sotrudnik; KIND, N.D., sotrudnik; KORESHKOV, B.Ya., sotrudnik;
KURYLEVA, N.A., sotrudnik; NEFEDOVA, Z.D., sotrudnik; POPUGAYEVA,
L.A., sotrudnik; POPOVA, Ye.M., sotrudnik; SKUL'SKIY, V.D.,
sotrudnik; SMIRNOV, G.I., sotrudnik; YURKEVICH, R.K., sotrudnik;
FAYNSHTEYN, G.M., sotrudnik; SHCHUKIN, V.N., sotrudnik; BUROV,
A.P., nauchnyy redaktor; SOBOLEV, V.S., nauchnyy redaktor;
VERSTAK, G.V., redaktor izdatel'stva; KRYNOCHKINA, K.V., tekhnicheskiy redaktor

[Diamonds of Siberia] Almazы Sibiri. [Moskva] Gos.nauchno-tekhn. izd-vo lit-ry po geol. i okhrane neдр, 1957. 157 p. (MLBA 10:7)

1. Russia (1923- U.S.S.R.) Ministerstvo geologii i okhrany neдр.
2. Amakinskaya ekspeditsiya Glavuralsibgeologii Ministerstva geologii i okhrany neдр SSSR (for Bobriyevich, Bondarenko, Gnevushev, Kind, Koreshkov, Kuryleva, Nefedova, Popugayeva, Popova, Skul'skiy, Smirnov, Yurkevich, Faynshteyn, Shchukin)
(Siberia--Diamonds)

Formation of seligite from pyroxene containing crystalline
schists of Archean complexes A. P. Bobrovskiy and
S. I. Zolotarev (Moscow)

" - A. P. Bobrovskiy, Zolotarev S. I. (Moscow)
It contains about 55 to 60% pyroxene and
10 to 15% regularly intergrown with
pyroxene. The remaining 25 to 30% is
a mixture of quartz and feldspar.

SECRET

1. - 741. Further analysis of the data
showed that the data was not
reliable. The data was not
reliable.

INSPECTION REPORT

The Kelyphide mine is a small, shallow, and
shallow, and is located in the
area of the mine. The mine is
located in the area of the mine.

(C-1, 49, 130690)

W. Buel

10/1/61

20-6-37/48

Moissanite in the Kimberlites of the East-Siberian Platform

and described. The indices of refraction almost exactly agree with those found in handbooks for moissanite. It was not possible to investigate the crystals goniometrically. Spectroscopical investigations showed the presence of Si, Fe, Al, Mg and a slightly marked carbon-line. From the results of the investigations follows that the mineral found is one of the crystallographical modifications of silicon carbide - moissanite occurring in nature. After this mineral had been discovered by Moissan in a meteor, it was never found again. In the years 1931 - 32 it was discovered among the sediments in the Miocene lime-concretions. This was, however, considered a find of a fossil meteorite. Thus the authors have good reasons for thinking that the silicon-carbide found in the layers and parent rocks of the East-Siberian platform is the first reliable find of moissanite of tellurian origin. It can be used as a guide in the search for kimberlite bodies and as a companion of diamonds. There are 3 figures, and 3 Slavic references.

Card 2/3

Moissanite in the Kimberlites of the East-Siberian Platform 20-6-37/48

ASSOCIATION: Institute for the Mineral Geology AN Ukrainian SSR,
L'vov
(Institut geologii poleznykh iskopayemykh Akademii nauk USSR
G. L'vov)

PRESENTED: by D.S. Korzhinskiy, Academician, March 20, 1957

SUBMITTED: March 18, 1957

AVAILABLE: Library of Congress

Card 3/3

ZAVARITSKIY, A.N. [deceased]; SOBOLEV, V.S.; KVASHA, L.G.; KOSTYUK, V.P.
~~BOBRIYEVICH, A.P.~~

New diagrams for determining the composition of high-temperature
plagioclases. Zap. Vses. min. ob-va 87 no.5:529-541 '58.

(Plagioclase)

(MIRA 12:1)

B. B. RYKOVA, A.P.
3(5, 8) 2.7

PHASE I BOOK EXPLOITATION

Akademiya nauk SSSR. Yakutskiy filial

Materialy po geologii poleznykh iskopayemykh Yakutii (Materials on the Geology of the Minerals of Yakutiya) Moscow, Izd-vo AN SSSR, 1959. 199 p. (Series: Its: Trudy. Seriya geologicheskaya. Sbornik, no. 4) Errata slip inserted. 1,500 copies printed.

Resp. Ed.: N. V. Cherskiy; Ed. of Publishing Houses: S. P. Shobolov; Tech. Ed.: P. S. Kashina.

PURPOSE: This collection of articles is intended for geologists, mineralogists, petrographers, and stratigraphers.

COVERAGE: This collection of articles discusses the geology of various East Siberian mineral complexes. Of particular interest are an article on Yakut diamonds (photographs show morphology and crystal structure) and one on alterations in rock complexes (albitization, biotization, etc.). References accompany each article.

Card 1/3

Kia

Stru

Western Slope

74

Materials on the Geology (Cont.)

SOV/3028

Strugov, A. S. On the Geology of the Kempendyayskoye Brown Coal Deposits 151

Bobrov, A. K. Cambrian Stratigraphy of the Lower Course of the Olekma
River 155

Tolstykh, A. N. New Data on the Permian Bryozoa of the Western Verkhoyan'ye
Region 165

AVAILABLE: Library of Congress

Card 3/3

MM/lsh
12-21-59

~~BOBRIYEVICH, A.P.~~; BONDARENKO, M.N.; GNEVUSHEV, M.A.; KRASOV, L.M.;
SMIRNOV, G.I.; YURKEVICH, R.K.; SOBOLEV, V.S., akademik, nauchnyy
red.; VERSTAK, G.V., red.izd-va; GUROVA, O.A., tekhn.red.

[Diamond deposits of Yakutia] Almaznye mestorozhdeniia Iakutii.
Nauchnyi red. V.S.Sobolev. Moskva, Gos.nauchno-tekhn.izd-vo
lit-ry po geologii i okhrane neдр, 1959. 526 p. (MIRA 12:11)
(Yakutia--Diamonds)

BOBRIYEVICH, A.P.; KURYLEVA, N.A.

Petrography of Siberian kimberlites. Trudy IAPAN SSSR.Ser.
geol. no.4:32-46 '59. (MIRA 12:8)
(Siberian Platform--Kimberlite)

BOBRYNEVICH, A.P.

Metamorphism of xenoliths in kimberlites of Eastern Siberia.
Zap.Vses.min.ob-va 88 no.2:199-201 '59. (MIRA 12:8)
(Siberia, Eastern--Xenoliths) (Siberia, Eastern--Kimberlite)

3(8)

SOV/20-126-3-50/69

AUTHORS: Bobriyevich, A. P., Smirnov, G. I., Sobolev, V. S., Academician

TITLE: A Xenolite of the Eclogite With Diamonds (Ksenolit eklogita s almazami)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 126, Nr 3, pp 637 - 640 (USSR)

ABSTRACT: A xenolite of the type mentioned in the title with a great number of visible diamonds was found in the kimberlite of the "Mir" tube, and handed over by R. K. Yurkevich and L. M. Zaretskiy to the authors for investigation. The rock forms a coarse-grained aggregate of red-orange colored garnet and dark-green monoclinic pyroxene. Diamond octahedrons are enclosed in their mass. Together with diamond, idiomorphic graphite crystals are visible (Figs 1,2 adjoining p 616). Garnet (Fig 3) constitutes more than 50% of the rock, and occurs in the form of idiomorphic or irregular grains. Tables 1 and 2 indicate the garnet composition in % converted to xenolite and basic components (analysis by E. A. Kolesnikova in the laboratory of the Amakinskaya Expedition). The same tables also contain analytic results together with conversions

Card 1/3

A Xenolite of the Eclogite With Diamonds

SOV/20-126-3-50/69

for other garnets for comparison. The diamond crystals are investigated at present and their description will be given later. They are flat facet-shaped octahedrons of coarse-laminar structure. In spite of eager search, it has only been possible up to date to find single concrescences of diamond crystals with eclogite minerals (Refs 4-6). According to Z. V. Bartashinskiy there are sometimes traces of graphitization visible in the xenolite diamonds. But this may be graphite of the 2nd generation which was formed after the reduction of pressure below the equilibrium curve graphite-diamond at the magmatic rise (before the formation of tubes). There are 2 types of eclogite formation: a) peculiar crystalline slates (Ref 1) with no plagioclase; b) not only the plagioclase is missing, but also the garnet has a different character here: it contains much less of the almandine component and is rich in chromic oxide. The eclogite discussed here is similar to type a. The occurrence of diamonds in the eclogite xenolite leads to the assumption that the rock referred to - in spite of the similarity mentioned - was formed at a higher pressure than is attained by the usual metamorphism (up to 20000 atmospheres). It is probable that this rock was lifted by the magma from

Card 2/3

A Xenolite of the Eclogite With Diamonds

SOV/20-126-3-50/69

great depths - though from smaller depths than the garnet peridotites. The taking hold of xenolites of diamond-containing eclogites does by no means justify the assertion that all diamonds in kimberlites are xenogenous. The diamond crystallization in the kimberlite magma, or in any case the genetic relation to this magma, are now established (Ref 1). There are 3 figures, 2 tables, and 7 references, 3 of which are Soviet.

ASSOCIATION: Amakinskaya ekspeditsiya Ministerstva geologii i okhrany nedr SSSR (Amakinskaya Expedition of the Ministry of Geology and for the Protection of Mineral Resources USSR)

SUBMITTED: March 26, 1959

Card 3/3

BOBRIYEVICH, A. P. Doc Geol-Min Sci -- "Petrography of ^{kimberlites} ~~granulites~~ of Yakutiya."
Novosibirsk, 1960. (Siberian Department of the Acad Sci USSR. Inst of Geochemistry.
Amakin Expedition of Yakut ^{probe} Geol Administration of Glavgeologiya / Main Geol
Prospecting Administration / RSFSR) (KL, 1-61, 184)

BOBRIYEVICH, A.P.; SMIRNOV, G.I.; SOBOLEV, V.S.

Mineralogy of xenoliths of grossularite-pyroxene-disthene rocks in
kimberlites of Yakutia. Geol. i geofiz. no.3:18-24 '60.

(MIRA 13:9)

1. Amakinskaya ekspeditsiya Yakutskogo geologicheskogo upravleniya
i Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR.
(Yakutia--Xenoliths) (Yakutia--Kimberlite)

BOBRIYEVICH, A.P.; KRYATOV, B.M.; SHCHUKIN, V.N.

Some data on the geology and petrography of Siberian kimberlites.
Trudy IAFAN SSSR. Ser.geol. no.6:24-36 '61. (MIRA 14:9)
(Daldyn Valley--Kimberlite)

BOBRIYEVICH, A.P.; SMIRNOV, G.I.

Hornblende from garnet amphibolite. Nauch.sob. IAFAN SSSR no.2:40-41
'59. (Hornblende) (MIRA 16:3)
(Amphibolite)

~~BOBRIYEVICH, A.P.; ILUPIN, I.P.; KOZLOV, I.T.; LEBEDEVA, L.I.;~~
~~PANKRATOV, A.A.; SMIRNOV, G.I.; KHAR'KIV, A.D.;~~
SOBOLEV, V.S., red.; BASHMAKOVA, Z.I., ved. red.

[Petrography and mineralogy of kimberlite rocks in
Yakutia] Petrografiia i mineralogiia kimberlitovykh po-
rod I Akutii. [By] A.F. Bobrievich i dr. Moskva, Nedra,
1964. 189 p. (MIRA 18:1)

BOBRIYEVICH, A.P.

Study of the material composition of the ultrabasic layer of the earth on the basis of studying ultrabasic rocks containing pyrope in kimberlites. Geol. i geofiz. no. 3:99-114 '65. (MIRA 18:6)

1. Amokinskaya ekspeditsiya, poselok Nyurba, Yakutskaya ASSR.

BOBRIYEVICH, P.

Petrology of ultrabasic inclusions in kimberlites of Eastern
Siberia. Razved. i okh.medr. 23 no.1:6-12 Ja '57. (MLRA 10:3)

1. Amakinskaya ekspeditsiya.
(Siberia, Eastern--Kimberlite)

BOBR-MODRAKOWA, Irena [deceased], DROSTE, Zofia; HORDEJUK, Jozef

A formula for the determination of earthquake magnitudes from surface waves adopted by the Warsaw Observatory. Acta geophys Pol 9 no. $\frac{1}{2}$:154-159 '61.

1. Zaklad Geofizyki PAN.

BOBRO, Yu. G.

Dissertation: "Investigation of Nondeforming and Heat-Resistant Cast Irons." Cand Tech Sci, Khar'kov Polytechnic Inst, Khar8Kov, 1953. (Referativnyy Zhurnal--Khimiya, Moscow, No 4, Feb 54)

SO: SUM 243, 19 Oct 54

Bobro, Yu. G.

USSR/Solid State Physics - Mechanical Properties of Crystals and Polycrystalline
Compounds, E-9

Abst Journal: Referat Zhur - Fizika, No 12, 1956, 34885

Author: Farafonov, Ye. Ye., Bobro, Yu. G.

Institution: None

Title: Heat-Resisting and Growth-Stable High-Strength Cast Iron with
Spheroidal Graphite

Original

Periodical: Tr. Khar'kovsk. politekhn. in-ta, 1954, 5, 67-74

Abstract: See Referat Zhur - Khim, 1956, 30864

Card 1/1

BOBRO, YU. G.

USSR.

2435* Resistance to Corrosion and High-Temperature Stability of Silicon Cast Iron With Nodular Graphite. *Moskovskiy khimicheskiy zhurnal* [Moscow Chemical Review], 1966, No. 1, p. 11-14. (Russian) I. E. Ferasimov and Ju. G. Sobolevskiy. *Abstracts of Papers*, 1966, No. 5, Mar., p. 21-24.

Influence of Si content and alloying elements on physical properties of nodular cast iron. Tables, graphs, micrographs. 1 ref.

M 31

18
 A new cast iron resistant to heat and to gradual wear.
 Yu. G. Bobro, *Plarka Chuguna*, 1955, No. 1, p. 10.
 dafst. Nauch.-Tech. Inform. Moscow, 1955. 10s. 75. *Ref. Zh.*
 Comparative studies were made of the properties of
 a) contg. Ni 2.5, Si 1.7, C 2.5; b) contg.
 contg. Cr 22.51, Si 1.5 and total C 2.05%; (c) silek with
 lamellar graphite (KPG) contg. Si 8.13 and 4.25%; (d) regular
 lar gray contg. Si 2.06%; (e) silek with spheroidal graphite
 (KShG), treated with Mg and 75% Fe-Si; and (f) silek with
 and 80% Fe-Si. The results show that the properties of the
 cast irons are improved by the treatment with Mg and Fe-Si.
 with the same content of Si. KShG contg. 2.06% Si has
 satisfactory processing qualities. The properties of the
 in KShG and KPG are similar. The structure of the
 pearlite from the structure of the pearlite. The structure
 becomes pure ferrite. The density of KShG is almost the
 same as that of regular gray cast iron; KShG contg.
 of Si is the most resistant of all cast irons to heat
 crystal growth. This is attributed to a lower rate of
 all of which is in the form of spheroidal graphite, and to an
 increase of critical temp. of the transition from pearlite to
 than 850-900°.

MT

137-58-4-8252

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 4, p 274 (USSR)

AUTHORS: Bobro, Yu.G., Garkusha, I. T.

TITLE: High-manganese Cast Iron With Spheroidal Graphite (Vysokomargantsovistyy chugun s sharovidnym grafitom)

PERIODICAL: Tr. Khar'kovsk. politekhn. in-ta, 1957, Vol 11, pp 149-152

ABSTRACT: The results of investigations of the mechanical properties and microstructure of high-manganese iron inoculated with Mn are presented. Iron of the following % composition was investigated: C 3.1-3.4, Mn 8.0-11.25, C(sic!) 1.2-1.5, P up to 0.1, Si 4.0-4.5. Positive results were obtained only on dry sand casting. On green sand casting, Mn carbides predominate in the structure of the iron, which eliminates the possibility of machining due to high H_B , which may attain 415. Inoculation made it possible to produce spheroidal graphite while retaining the austenitic and consequently nonmagnetic structure of the iron. The σ_{bi} was increased by 50 to 100% with some reduction in bending deflection and an increase in hardness.

Card 1/1

1. Cast iron--Mechanical properties--Effects of manganese Yu. I.
2. Iron--manganese alloys--Mechanical properties

137-58-1-1233

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 1, p 165 (USSR)

AUTHORS: Bobro, Yu. G., Kovalenko, V. S.

TITLE: Nitriding of Iron with Spheroidal Graphite (Azotirovaniye chuguna s sharovidnym grafitom)

PERIODICAL: Tr. Khar'kovsk. politekhn. in-ta, 1957, Vol 9, pp 157-167

ABSTRACT: An investigation in the nitriding (NI) of spheroidal-graphite iron (SGI) and lamellar-graphite iron is made. The microstructure, depth, and microhardness of nitrided iron is studied on the PMT-3 instrument. For purposes of comparison, experiments in the NI of technically pure Fe and also of steels 20, U7 and 60S2 were conducted. In all types of NI the degree of dissociation of NH_3 remained within the 30-45% interval. The temperature was studied in the 650-770° interval. The nitrided layer of SGI was 0.25-0.30 mm thick and consisted of a weakly etching thin layer of ϵ phase (and δ' phase) and a dark $\epsilon + \delta'$ eutectoid. The nitrided layer was distinguished by elevated hardness (891-945 units) and corrosion resistance (in tap water). The duration of the NI process may be reduced by raising the temperature to 720°, by brief (2-3 hours) holding, hardening

Card 1/2

137-58-1-1233

Nitriding of Iron with Spheroidal Graphite

after NI in water, and dilution of the NH_3 by technical N_2 . Spheroidal graphite proves to be the most desirable form in iron when the latter is subjected to NI, as under these conditions the diffusion of N occurs under the most favorable circumstances owing to the discreteness of the graphite. An increase in the Si content is unfavorable, and a reduction in bound C is desirable for NI.

1. Iron--Nitration 2. Graphite--Applications

L.D.

Card 2/2

PHASE I BOOK EXPLOITATION

SOV/4359

Bobro, Yuriy Georgiyevich

Zharostoykiye i rostoustoychivyye chuguny (Scale and Growth-Resistant Cast Irons)
Moscow, Mashgiz, 1960. 167 p. 5,000 copies printed.

Reviewer: R.I. Anpilov, Engineer; Ed.: M.S. Soroka; Chief Ed. (Southern
Division, Mashgiz): V.K. Serdyuk, Engineer.

PURPOSE: This book is intended for technical personnel in industrial and scientific research establishments.

COVERAGE: A generalization is given of the results of Soviet and non-Soviet scientific and industrial research on the scale resistance and growth resistance of cast irons. Recommendations for the selection of the most suitable scale-resistant and growth-resistant materials are made. These recommendations are based on an analysis of scientific and industrial research data and on results of the author's research. Methods for determining scale resistance and growth resistance of cast iron are described. The author thanks Professor Ye.Ye. Farafonov, Docent B.A. Noskov, and Engineer I.V. Ryzhkov for their comments.

~~Card 1/1~~

BOBRO, YU. G.

PHASE I BOOK EXPLOITATION SOV/5511

Nauchno-tekhnicheskoye obshchestvo mashinostroyitel'noy promyshlennosti.
Kiyevskoye oblastnoye pravleniye.

Metallovedeniye i termicheskaya obrabotka (Prilozheniye k spetsializatsionnoy
obrabotke metallov) Moscow, Mashgiz, 1961. 150 p. 50000 copies printed.

Sponsoring Agency: Gosudarstvennyy nauchno-tekhnicheskyy komitet
Soyuznogo Ministrov UkrSSR. Nauchno-tekhnicheskoye obshchestvo
mashinostroyitel'noy promyshlennosti. Kiyevskoye oblastnoye
pravleniye.

Editorial Board: M. P. Braun, Doctor of Technical Sciences, I. Ya.
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skiy, Candidate of Technical Sciences, V. G. Permyakov, Doctor
of Technical Sciences, and A. V. Chernovol, Candidate of Tech-
nical Sciences; Ed.: M. S. Soroka, Tech. Ed.: M. S.
Gornostaypol'skaya; Chief Ed., Mashgiz (Southern Dept.): V. K.
Serdyuk, Engineer.

Card 1/10

PURPOSE: This collection of articles is intended for scientific
workers and technical personnel of research institutes, plants,
and schools of higher technical education.

COVERAGE: The collection contains papers presented at a convention
held in Kiyev on problems of physical metallurgy and methods of
the heat treatment of metals applied in the machine industry.
Phase transformations in metals and alloys are discussed.
Results of investigations conducted to ascertain the effect of
heat treatment on the quality of metal are analyzed. The pos-
sibility of obtaining metals with given mechanical properties
is discussed, as are problems of steel brittleness. The col-
lection includes papers dealing with kinetics of transformation,
heat treatment, and properties of cast iron. No personalitites
are mentioned. Articles are accompanied by references, mostly
Soviet.

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Kocherzhinskii, Yu. A., Candidate of Technical Sciences (Kiyev). Conditions of Formation of Metastable Austenite in Iron-Carbon Alloys	22
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Card 3/10

Physical Metallurgy (Cont.)	SOV/5511
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LEBEDENKO, V.V., kand.tekhn.nauk

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1. Khar'kovskiy politekhnicheskii institut.
(Cast iron--Metallography)
(Metals, Effect of temperature on)

LYUBCHENKO, A.P.; MOZHAROV, M.V.; BOBRO, Yu.G.

Autoradiographic and radiometric investigation of modified
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(MIRA 15:11)

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Effect of aluminum on engineering properties of structural and
special-purpose cast irons. Mashinostroenie no.5:56-59 S-0 '63.
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BOBRO, Yu.G., kand.tekhn.nauk; TANANKO, I.A., kand.tekhn.nauk

Nitriding of high-strength alloyed cast irons. Mashinostroenie
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BOBRO, Yu.G.

Certain characteristics of the liquid state of aluminum cast iron.
Izv. vys. ucheb. zav.; chern. met. 7 no.3:188-192 '64.

(MIRA 17:4)

1. Khar'kovskiy politekhnicheskii institut.

IVANOVA, L.P.; BOERO, Yu.G.; TANANKO, I.A.

Intermediate transformations in cast iron alloyed with aluminum.

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AUTHORS: Palatnik, L. S.; Tananko, I. A.; Bobro, Yu. G.

TITLE: Nature of the ϵ -phase in alloys of Fe - Al - C

SOURCE: Kristallografiya, v. 9, no. 2, 1964, 209-212

TOPIC TAGS: epsilon phase, Fe Al C alloy, x ray structure, metallographic analysis, chemical analysis, carbide, Fe sub 3 AlC, eutectic, austenite

ABSTRACT: The authors have studied the high-carbon ϵ -phase of Fe-Al-C alloys by x-ray structure, metallographic, and chemical analyses. This phase was found to be an interstitial phase (carbide) corresponding to the formula Fe_3AlC . It was found that this carbide, like other carbide phases, forms during crystallization from liquid solutions as a primary phase and in eutectic proportions. It also forms during the breakdown of austenite. The macrohardness of the ϵ -phase of slowly cooled alloys ranges from 600 to 750 units of H μ . The lattice constant a depends on the carbon content in the fashion shown in Fig. 1 on the Enclosure.

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Yu. S. Rodchenkova participated in the experimental part of this work. *Orig. art. has: 3 figures and 1 table.

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